

# Open Research Online

---

The Open University's repository of research publications  
and other research outputs

## Human resource management in US subsidiaries in Europe and Australia: centralisation or autonomy?

### Journal Item

#### How to cite:

Fenton-O'Creevy, Mark; Gooderham, Paul and Nordhaug, Odd (2008). Human resource management in US subsidiaries in Europe and Australia: centralisation or autonomy? *Journal of International Business Studies*, 39(1) pp. 151–166.

For guidance on citations see [FAQs](#).

© 2008 Academy of International Business

Version: Accepted Manuscript

Link(s) to article on publisher's website:  
<http://dx.doi.org/doi:10.1057/palgrave.jibs.8400313>

---

Copyright and Moral Rights for the articles on this site are retained by the individual authors and/or other copyright owners. For more information on Open Research Online's data [policy](#) on reuse of materials please consult the policies page.

---

[oro.open.ac.uk](http://oro.open.ac.uk)

**HRM IN US SUBSIDIARIES IN EUROPE AND AUSTRALIA:  
CENTRALIZATION OR AUTONOMY?**

Mark Fenton-O'Creevy\*, Professor of Organisational Behaviour, Open University Business School, UK.

Paul Gooderham, Professor of International Management, Norwegian School of Economics and Business Administration, Norway.

Odd Nordhaug, Professor of Administrative Science, Norwegian School of Economics and Business Administration, Norway.

Forthcoming in Journal of International Business Studies, 2007

\* Open University Business School

Open University, Walton Hall,

Milton Keynes, MK6 7AA, UK

Tel. +44 (0)1908-655804

Fax: +44 (0)1908-655898

e-mail: [m.p.fenton-ocreevy@open.ac.uk](mailto:m.p.fenton-ocreevy@open.ac.uk)

Running Title: HRM IN US SUBSIDIARIES

**HRM IN US SUBSIDIARIES IN EUROPE AND AUSTRALIA:  
CENTRALIZATION OR AUTONOMY?**

**Abstract**

We explore determinants of subsidiary autonomy in setting HRM practices within US parented MNEs, in Europe and Australia. We examine both the effect of strategic context, and the effect of the institutional location of the subsidiary. We find that US MNEs show greater centralization of control over HRM where the subsidiary faces global markets, in coordinated market economies versus liberal market economies, and where union density is low.

**Keywords:** International HRM, subsidiary management, neo-institutional theory, strategic context, centralized control, multinationals

## **HRM IN US SUBSIDIARIES IN EUROPE AND AUSTRALIA: CENTRALIZATION OR AUTONOMY?**

Although an important source of competitive advantage for multinational enterprises (MNEs) may lie in their ability to deploy organizational and management capabilities worldwide, many MNEs have chosen, for strategic reasons, to concede considerable autonomy to their subsidiaries in designing their own management systems (Kostova and Roth, 2002; Noorderhaven and Harzing, 2003; Myloni et al., 2004). As Harzing (2000) has demonstrated, subsidiary autonomy in human resource management (HRM) is a feature of MNEs that are generally classified as multi-domestics; that is, MNEs whose subsidiaries have domestic mandates involving a local market scope accompanied by considerable latitude to engage in local product modification and local adaptation of marketing.

On the other hand there are those, such as Birkinshaw and Hood (1998), who view subsidiary autonomy as not only determined by the relationship of the head office to its subsidiaries, but also by the nature of the local institutional environment in which the subsidiary operates. They argue that the nature of local legal conditions, the cultural environment, and the influence of the local authorities will all impinge on the degree to which subsidiaries have local control over their HRM systems.

The aim of this paper is to combine these two perspectives by simultaneously examining the effects of the strategic role of the subsidiary and the institutional environment in which the subsidiary is located, in relation to the degree of centralization of control of HRM policies imposed by corporate headquarters. We examine the influence of the strategic role of the subsidiary in the sense of whether it has a purely local market orientation or whether it serves international markets. At the same time we investigate the impact of the environment in which the subsidiary is located by differentiating between the response of the MNE to the broad institutional setting at the level of national business systems (Whitley, 1992; Lane, 1992; Sorge, 1995; Foss, 1999; Hollingsworth, 2003; Redding, 2005) in which the subsidiary is located and, separately, the impact of labor unions on MNEs' ability to exert centralized control (e.g., Ortiz, 1998; Giardini et al., 2005; Singe and Croucher, 2005).

We argue that US MNEs operate in relation to host country environments on the basis of both "economic rationality" and "normative rationality" (Oliver, 1997). That is on the one hand within-

firm managerial choices (of organizational goals) are guided by an economic rationality and by motives of efficiency, effectiveness and profitability. On the other hand, though, firms also operate within an institutional framework of norms, values, and taken-for granted assumptions about what constitutes appropriate or acceptable economic behavior (Oliver, 1997:699; Fenton-O'Creevy and Wood, 2007). Thus a decision by a US MNE in regard to exerting centralized control of a subsidiary's HRM-regime is motivated not only by economic self-interest but also by deeply-held assumptions concerning appropriate goal setting which arise out of the parent companies' embeddedness in a particular (USA) home country institutional setting.

As, Oliver (1991) has argued, firms do not simply acquiesce to institutional pressures. Their responses to host country institutional pressures will lie on a continuum from acquiescence through, compromise, avoidance and defiance to attempts to manipulate the institutional setting. The antecedents of their responses include competing institutional pressures, perceptions of economic (dis)benefits associated with those pressures and their dependence on important institutional constituents who may act to enforce institutional constraints.

Thus we argue that given significant divergence between parent and host country institutional context and perceived economic disadvantages of compliance, US MNEs will actively resist host country institutional pressures except when coerced to comply by active institutional constituents such as labor unions on which they are dependent (Hitt et al., 2004; Peng et al., 2005; Oliver, 1991). Thus in the context of divergent institutional settings US MNEs will seek centralized control of the HRM agenda except when they are dependent on cooperation from labor unions substantially entrenched within the subsidiary.

In the next sections we first distinguish two generic national business systems: liberal market economies and coordinated market economies and a continuum between them (Hall and Soskice, 2001; Hall and Gingerich, 2004). Thereafter, we delineate the management style and HRM procedures characteristic of US MNEs. We then address the manner in which US MNEs may be assumed to treat the issue of centralized control of core HRM practices in their subsidiaries according to the business system in which their subsidiaries are located. This is followed by a discussion of the role of labor unions where

we argue that high union density in US MNE subsidiaries will result in less centralized control. Finally, we deal with the way in which the strategic role or market scope of subsidiaries influences the degree of centralized control. The resulting three hypotheses are then tested and discussed.

### **Liberal versus coordinated market economies**

A common distinction within the national business systems approach is between the “liberal market economies” (LMEs) of the US, the UK, Ireland and Australia and the “coordinated market economies” (CMEs) of much of Continental Europe (Hall and Soskice, 2001). Firms operating in the latter context are regarded as significantly more institutionally constrained than those in the former, in the sense that they operate within contexts whose legal frameworks and systems of industrial relations constrain managers’ autonomy in applying market driven or technologically contingent management practices. Hall and Soskice (2001) point to a number of systematic and fundamental differences in HRM practices between firms operating in LMEs and CMEs that are derived from these institutional structures. These principally involve pay policy, the degree of job security, and employee training. Whereas in LMEs there are substantial pay differentials even within the same industries, in CMEs much pay negotiation occurs at the industry level, taking pay negotiation out of the workplace. While in LMEs, the opportunities for employee dismissal for economic reasons are relatively unconstrained, in CMEs there is a tradition of long-term labor contracts and substantially greater security against arbitrary layoffs. Employee training represents a third significant difference. Whereas in CMEs (driven by the long term nature of the employment relationship) training is traditionally not only firm specific but also industry specific, in LMEs training is highly firm specific.

These substantial differences between LMEs and CMEs are given an empirical underpinning in Hall and Gingerich’s (2004) coordination index<sup>1</sup>. Hall and Gingerich are able to demonstrate on the basis of econometric data that key measures of corporate governance and labor relations in the

---

<sup>1</sup> We are grateful to an anonymous reviewer for the suggestion to use this index in the analysis

political economy can be combined to produce a single factor which captures much of the variance of these elements. The index combines measures of shareholder power, dispersion of firm control, size of stock market, level and degree of wage coordination and labor turnover. All are highly correlated with a single factor. Thus their index for the first time provides the opportunity to specify the position of a country in terms of a single LME-CME continuum that runs from “0” for the USA to “1” for Austria.

In calculating their coordination index they have included a wide range of developed countries thereby rendering a “varieties of capitalism approach to comparative capitalism pertinent not only to relatively pure types of LMEs or CMEs” (Hall and Gingerich, 2004: 37) but also to the many less pure or ambiguous forms. With coordination conceived as a continuum between “pure LME and “pure” CME the index can be used to locate a much greater number of nations vis-à-vis one another than previous “pure-types” dichotomous approaches had permitted. At the same time, though, the index does confirm the validity of the basic distinction between LMEs and CMEs.

Within Europe, not only Hall and Soskice (2001) but also Albert (1991), Hollingsworth and Boyer (1997), Gooderham et al. (1999), Geppert et al. (2002) and Tempel (2002) have exemplified the basic distinction between LMEs and CMEs with reference to the UK and Germany, with the former as the main pure type of LME and the latter epitomizing the CME. The Hall and Gingerich index serves to validate this approach with the UK having the value of “.07” and Germany the value of “.95”. Typically, it is argued that UK firms coordinate their activities primarily through competitive markets and hierarchies. Firm relations are characterized by arm’s-length exchanges of goods and services in a context of competition and formal contracting. Firm governance is characterized by the primacy of shareholder interests and the operation of well-developed capital markets. In short, like the USA, it is a “shareholder economy” under which private enterprise is about maximizing short-term profits for investors rather than seeking any broader harmony of interests. Within this context managerial decisions are typically perceived as legitimate to the extent that they align closely with shareholder interests, maximizing firm profitability. It is also unique in the European context in that during the 1980s its employment legislation and thereby its industrial relations environment was subject to radical changes. Most notably, this legislation includes the Employment Acts of 1980,

1982, 1988 and 1990, and the Trade Union Act of 1984. Coupled to these acts are severe civil penalties. Together, these acts curbed the unions' right to recognition, outlawed the closed shop and secondary picketing, and narrowed the freedom of unions to call strikes (for instance, by a requirement that a secret ballot of the members is to be called first). The result was a considerable increase in general managerial autonomy coupled to a pronounced reduction in the influence of trade unions (Edwards et al., 1992; Rubery and Wilkinson, 1994).

Germany, the classic exemplar of the CME, is characterized by a considerably greater emphasis on coordination through non-market mechanisms – relational contracting, coordination and mutual monitoring through networks – and greater reliance on collaborative rather than competitive relationships to build firm competence. Firm governance is characterized by attention to a wider set of stakeholder interests, reinforced by legislation on employee rights and by financial arrangements that are less reliant on open capital markets. One particular feature of Germany is its elaborate system of co-determination, which is regulated at the plant level by the Works Constitution Act of 1972 and at the enterprise level by the Works Constitution Act of 1952, superseded in 1976 (Hollingsworth, 1997). As a consequence of this legislation, employers need to maintain positive relations with the works councils. These are employee-elected bodies legally entitled to co-determination, consultation, and access to important information, hence restricting the degree of managerial autonomy (Klikauer, 2002; Wächter and Stengelhofen, 1995; Scholz, 1996:123-124). In summary, German work-life is characterized not only by powerful labor representative bodies, but also by strong work legislation that constrains managerial autonomy in the firm. Within this context managerial decisions are seen as legitimate to the extent that they accord with a range of stakeholder interests. Maximizing profitability is still an important goal but balanced against competing claims.

The Hall and Gingerich (2004) index not only confirms the position of Germany as a prototypical CME but it is also confirmatory in regard to the categorization of a number of other European nations that have been viewed as constituting relatively pure forms of CMEs. This includes the Netherlands, Switzerland Belgium and Austria all of which previous studies indicate score highly in relation to measures of corporatism and the centralization of labor relations (Dell’Arling and Lodovici, 1992: 32-33) and all of which have similar social partnership institutions to that of



Germany, including works council institutions. In addition the Hall and Gingerich index indicates that the concept of CME can be extended to include the Nordic countries of Sweden, Finland, Denmark and Norway. This is line with previous studies that have indicated that in these countries there is a strong and pronounced legislative framework, which ensures that labor unions are consulted on a range of HRM issues such as downsizing and outsourcing. (Bévort, Pedersen and Sundbo, 1995). Thus together with the strong protection of individual rights afforded to employees by laws and agreements, this means that the general autonomy of management is significantly restricted (Kristensen, 1992).

Hall and Soskice (2001) observe that a number of European countries, including France, Italy, Spain and Portugal, have somewhat ambiguous positions in relation to the LME/CME distinction. Hall and Gingerich's (2004) index reveals that while these nations may have somewhat weaker institutional capacities for strategic coordination in labor relations than northern European nations, possibly because of the historical nature of their union movements they are clearly positioned towards the CME end of the index's LME/CME continuum.

Hall and Gingerich's index also makes it possible to distinguish between countries that, in varying degrees, fall within the LME category in its broader sense. Thus Australia, with its separate state-operated, as opposed to national, industrial relations regime cannot be regarded as a "pure" LME. However, particularly since the introduction of the *Industrial Relations Reform Act* in 1993 which significantly modified the state arbitral system (Barry and Wailes, 2004) Australia clearly cannot be classified as a CME. Not only did this act limit the terms and conditions of bargaining but it also effectively created the possibility of legally sanctioned non-union agreements. Likewise although Ireland is by no means a "pure" LME, in that trade unions enjoy strong legitimacy and collective bargaining rights (Gunnigle et al., 2002), there are grounds to regard it as having acquired many LME characteristics as a consequence of its pursuit of foreign direct investment. This has involved granting legitimacy to "greenfield" sites, which permit firms to decide their preferred form of industrial relations (Gunnigle et al., 2001). Significantly for our study, research has indicated that it is particularly US MNEs that have used this latitude to implement US-style personnel policies (Gunnigle et al., 1997).

### Key HRM issues for US MNEs

Typically in the period since the 1970s US MNEs have adopted a 'remote' management style where strategic decisions reside with corporate headquarters, which monitor profits and allocate resources to the operationally independent geographical divisions (Mayer and Whittington, 2002; Bartlett, 1986). This early adoption by US corporations of a remote management style derives from their LME setting where firms, unlike their continental European counterparts, have an objective need to regularly convey to capital markets the viability of their individual operations (Whitley, 1997). Harzing et al. (2002) have shown that in practice this remote management style means that US MNEs generally do not, unlike German MNEs, attempt to apply direct personal control to their subsidiaries. Instead they primarily rely on impersonal control and indirect personal control mechanisms.<sup>2</sup>

*Direct personal control* involves the extensive use of expatriates in top subsidiary positions. *Impersonal control* comprises not only the monitoring of financial outputs, but also standardized, centralized procedures. As we have indicated above, Hall and Soskice (2001) have identified two core HRM procedures characteristic of LME firms such as US MNEs. One is the operation of highly differentiated pay systems and the other is the use of flexible employment contracts that make it easier to recruit labor and expand the work force in order to take advantage of new opportunities. This implies the desirability of controlling the industrial relations agenda from the centre. *Indirect personal control* involves informal cultural control over subsidiaries through socialization and training of and communication with key managers.

One core formal practice identified by Harzing et al. (2002) that contributes to indirect personal control is that of training with the purpose of securing that all units of the MNE work towards common organizational goals. The degree to which training, whether it be management

---

<sup>2</sup> Employing a factor analysis, Harzing et al. (2002) conclude that control mechanisms used by MNEs can be classified in terms of one dimension, personal/impersonal. She further finds that personal control mechanisms can be subdivided into direct/indirect. This is not the case for impersonal control mechanisms.

development or training and development in general, can promote and engender common values across the MNE is dependent on the degree to which the control of training is centralized.

In contrast to German and Japanese MNEs, US MNEs make relatively little use of direct personal control mechanisms (Harzing et al., 2002). Instead impersonal control is supplemented by indirect personal control via the socialization and acculturation of managers and key employee groups.

In Table 1 we have summarized those HRM practices that are critical for the realization of the two types of control characteristically applied by US MNEs to their subsidiaries. Thus, in this paper, we will focus on the locus of decision-making in relation to the following six central HRM practices: pay policy, workforce expansion, recruitment and selection, the industrial relations agenda, management development and training and development in general. In essence we are investigating under what circumstances US MNEs are “obliged” to centralize decision-making over these practices.

#### TABLE 1 ABOUT HERE

#### **Institutional pressures**

Neo-institutional theory (Scott, 1995) suggests that, in order to survive, organizations need to gain legitimacy and do so through isomorphism with salient institutions. That is, they will tend to conform to the rules and belief systems prevailing in their environment (DiMaggio and Powell, 1983); what Oliver (1997) describes as normative rationality. While this theory has been supported in the context of unitary environments it is more problematic in complex environments with multiple institutional demands (Xu and Shenkar, 2002). Since the MNE is situated both in its country of origin and, through its subsidiaries, in a number of other locations, it operates under multiple, possibly conflicting institutional pressures. Thus, MNEs are confronted with the pressure for global integration to achieve internal consistency on the one hand and the need for a local orientation to achieve local external legitimacy on the other (Westney, 1993; Kostova, 1999; Kostova and Roth, 2002).

Oliver (1991) has argued that institutional approaches underplay the role of agency and has attempted to identify the strategic responses of organizations operating under such diverse conditions. Taking into account both organizational self-interest and active agency in

organizational responses to institutional pressures and expectations, she proposes that rather than simply acquiescing to institutional pressures, organizations have a range of potential responses ranging from acquiescence, through compromise, avoidance and defiance to attempts to manipulate the institutional setting.

This range of potential responses is especially important in the context of legally mandated elements of the institutional context. In particular, while firms may be reluctant to engage in outright defiance of local laws, they are often in a position to bypass or ameliorate the impact of legislation. There is evidence that US MNEs engage in this full gamut of responses in response to local institution pressures, even where coercive pressures have a basis in legislation. For example, in Germany (with arguably some of the most strongly policed legislative constraints on managerial choice about HRM practices and governance) studies document US firms engaging in this full range of responses to the German business system (Singe and Croucher, 2005).

Oliver (1991:164) argues that the lower the degree of consistency of institutional norms or requirements with organizational goals, the greater the likelihood of organizational resistance to institutional pressures. The potential for organizational resistance would be particularly likely in relation to HRM practices for which internal consistency is essential for the MNE (Rosenzweig and Nohria, 1994). In the case of US MNEs this entails the six HRM practices we have delineated above.

MNEs are particularly likely to engage in resistance to institutional pressures when the logic of both economic and normative rationality coincide (Oliver, 1991; 1997). That is, MNEs will show greater resistance where they see low economic benefits (or disbenefits) of compliance and where they see low legitimacy benefits attaching to compliance in relation to their home institutional setting. Thus US MNEs not only have a financial incentive to resist the costly, non-market derived practices associated with CMEs and which run counter to their own HRM practices, but because of parent embeddedness in the US institutional setting the legitimacy benefits of local compliance are diluted. By contrast, for subsidiaries within LMEs, local institutions pose little resistance to the implementation of US MNEs' core HRM practices: indeed local institutions are actually supportive of them.

In practice this means that one should expect a pronounced attempt by US MNEs to centralize the control of HRM in CMEs rather than delegating it to local managers who, because of their embeddedness in the local institutional setting, may be disinclined to defy local norms. While managers in the subsidiary and in head office are each likely to be concerned about the coercive legal pressures facing the subsidiary, embedded as they are in different institutional settings, they will face different normative pressures and have different cognitive-cultural mindsets. In particular, managers in a CME setting work in a context in which decision legitimacy depends on balancing the claims of multiple stakeholders, whereas managers in the US head office are embedded in a shareholder economy where decision legitimacy depends primarily on a focused concern for shareholder value. In this context, a US parent wishing to ensure that local (CME) constraints are bypassed or upheld in the letter rather than spirit of the law is unlikely to delegate HRM policy-setting to local managers.

For a US MNE, ensuring through centralized impersonal control that its market-derived values and management systems are adhered to by their subsidiaries is of considerably greater consequence in the context of CMEs than for LMEs where values and systems will be largely contiguous with those of the US. Case study research has documented the strenuous efforts US MNEs will make to overcome institutional blockages to the implementation of their standard systems where there is a significant gap between home and host country institutional context (see e.g. Almond et al, 2005). There is also considerable documentation of attempts made by US MNEs to overcome and erode the constraints on their managerial autonomy imposed by German institutions (for a review see Singe and Croucher, 2005). Further, we argue that indirect personal control, via training and other activities designed to enlist managers in a common set of values and approaches, will be unlikely to succeed alone in the face of a significant gap in institutional context between parent and subsidiary. Thus in the face of such a gap, the MNE will be inclined to seek centralized, control.

### **The impact of labor unions**

However, CME's (in contrast to LMEs) are also associated with strong and well organized labor unions. As Oliver (1991) notes, even where they have legal backing, the efficacy of institutional pressures relies on the power of institutional constituents, with a stake in the outcomes, to police them. Thus MNE resistance to institutional pressures is less likely where the subsidiary is directly exposed to key institutional constituents with a stake in outcomes with labor unions playing an especially important role in the maintenance and enforcement of HR related institutions.

Our notion, above, of reluctance by MNEs to accept institutional pressures does apparently run counter to the assumptions of, for example, Ferner (1997) and Tempel (2002) that the extent to which US MNEs are able or willing to superimpose their country-of-origin concerns will vary according to the degree to which the local institutional context is "permissive". That is, they assume that the centralization of control of HRM in regard to key concerns will be more a feature of subsidiaries located in LMEs rather than CMEs. We argue that this assumption is a product of conflating national business systems with the agency represented by institutional constituents of which labor unions are of particular importance (Croucher et al., 2006). Although national business system and degree of unionization are significantly correlated, the one does not necessarily imply the other. As Singe and Croucher (2005:134) indicate in their review of the behavior of US MNEs in Germany, while survey evidence generally shows relatively high degrees of compliance by US MNEs in relation to institutional pressures, there is also substantial case study evidence of US MNEs avoiding these pressures and actively pressuring "employees to internalize management logics and reject trade union links." There are even cases in CME settings of firms that have avoided entering into collective agreements with unions thereby circumventing the core, active link between the strictures of the regulatory environment and the firm (e.g. Royle, 2002). In these cases centralization by US MNEs is significantly more feasible than in cases where subsidiaries have to confront union organizations. While, in some settings (e.g. Germany, Netherlands) works councils are also an important institutional stakeholder, their power is strongly linked to that of the unions (French 2001: 571). As Wever, (1994:468) has shown, because works councils are highly dependent on unions for resources and support, the unions "in many ways shape the works councils strategies and actions".

While our arguments above particularly apply to CMEs, as Gooderham and Nordhaug (1997) have reported, even within LMEs, labor unions, when present, are able to exert an influence that obliges management to take their views on HRM issues into account. We may therefore suppose that US MNEs faced with unions which represent a substantial proportion of the work-force will prefer to delegate HRM policy to the subsidiary level where the knowledge of how to manage the subsidiary-union relationship is located rather than attempting to impose it centrally: it is difficult to carry out detailed labor negotiations across the Atlantic. Case study research in the UK on the US parent-subsidiary relationship also suggests that local management may draw on their relationship with the union and their claimed understanding of that relationship as a political resource in persuading the parent company of the inadvisability of imposing centrally determined HRM policies (Hamill, 1984, Ferner et al., 2004: 382).

Thus on the one hand we can see that US MNEs will be more motivated to seek control of HR practices in subsidiaries based in CMEs. On the other hand, the greater level of unionization in CMEs will make such resistance less likely. However, since unionization varies between firms within economies, we can separate out the effect of institutional distance between US parent and CME based subsidiaries and the effect of unionization. Thus we may hypothesize:

***Hypothesis 1: Controlling for level of unionization, the degree of centralized control that US MNEs impose on their subsidiaries will vary according to host country. That is, the higher the host country's score on the Coordination Index, the greater the degree of centralized control on subsidiaries.***

***Hypothesis 2: The higher the level of unionization in a subsidiary, the less the US MNE will impose centralized control on that subsidiary.***

### **Subsidiary market scope**

So far we have considered the institutional context for control of HRM policies. However, it is unlikely that the extent to which MNEs grant autonomy to subsidiaries in respect of HRM is divorced from wider corporate strategy. Indeed one of the primary factors identified in prior work as

predicting subsidiary autonomy is the strategic role of the subsidiary; particularly the extent to which it serves purely local markets or holds a global product mandate.

The degree of subsidiary market scope may vary significantly. At the one end of the spectrum there are subsidiaries whose mandate is purely domestic and which aim at achieving maximum responsiveness to local market conditions, at the other end subsidiaries which have global product mandates (Bartlett and Ghoshal, 1989). Subsidiaries with purely domestic mandates extensively customize their products and skills and marketing strategies to conform to variations in local market conditions. Although the parent company coordinates financial controls and some marketing policy, and may even centralize some R&D and component production, each subsidiary behaves like an independent strategic business unit. That is products in subsidiaries of multi-domestic MNEs have country-specific design in order to tailor products to local needs (Roth, 1992). As a consequence these subsidiaries are characterized by a substantial degree of autonomy in terms of the MNE and a pronounced dependence on the local environment (Roth, 1992).

In our introduction we referred to Harzing's (2000) finding that subsidiaries with a purely domestic market focus, in the sense that they only serve within-national markets, are indeed less likely to be subjected to centralized control than those which serve global markets. This corresponds with studies by Garnier (1982), Martinez and Jarillo (1991) and Roth (1992). It is also similar to Kihn's (2001) findings that suggest that when the degree of multi-domestic strategy increases, the parent company places relatively less weight on operational and behavioral controls. The greater autonomy in terms of these controls of MNEs with a local market-orientation is in part because their semi-detached status means that they are of less consequence for the MNE than if they were serving global markets on behalf of the MNE (Taggart and Hood, 1999), and in part because their mandate to engage in local product and marketing adaptation implies a local approach to HRM. Thus our third hypothesis is as follows:

***Hypothesis 3: US MNEs will impose less centralized control on subsidiaries that serve domestic rather than international markets.***



### **Control variables**

When considering variations in the degree of centralized control imposed by US MNEs on their subsidiaries, Young and Tavares (2004) list a number of subsidiary features that previous research has taken into account when dealing with the topic of subsidiary autonomy. One is industry: we may assume that subsidiaries that deliver services will generally be locally adapted to a greater extent than manufacturing plants and therefore less subject to centralized control. Another is the relative impact of size: the smaller the subsidiary, the less likely it is that the MNE will invest in centralized control. A third is the age of the subsidiary: MNEs may find it less necessary to impose centralized control on older subsidiaries because these during the course of time have been sufficiently socialized into the way the MNE conducts HRM.

### **Methods**

To test our predictions we have employed data derived from the 1999 Euronet-Cranet survey of HRM in European countries. The overall strategy of the survey was to mail appropriately translated questionnaires to human resource managers in representative national samples of firms with more than one hundred employees. Problems in ensuring that the selection and interpretation of topic areas was not biased by one country's approach, as well as problems related to the translation of concepts and questions, were largely overcome by close collaboration between business schools located in each country (for a detailed description of the Euronet-Cranet approach, see Brewster et al., 1996). Although the response rate for the individual countries is relatively low, mostly between 20 and 35 per cent, analyses of previous Euronet-Cranet surveys suggest that the statistical representativeness has not been impaired (Brewster et al., 1994).

The total survey data set covers 8,050 firms. In terms of the various national samples our overall sub-sample of 441 US owned firms varies from a low of 4 per cent of the total sample in Denmark and Norway, through 8 and 11 per cent respectively in Germany and the UK respectively to 22 per cent in Ireland, and 23 per cent in Australia. These marked national differences in the proportion of US owned firms in our sample are not surprising given the very different shares of foreign ownership in each of the economies.

Table 2 summarizes the country distribution of the sample.

TABLE 2 ABOUT HERE

### **Dependent Variable**

*Centralized control index:* The degree of centralized control experienced by the subsidiary is measured by respondents indicating where policies are set in relation to each of the six core HRM categories: pay and benefits, workforce expansion, recruitment and selection, industrial relations, management development and training and development. Respondents were asked to indicate where policies in relation to these issues were determined with possible locations being: ‘International HQ’, ‘National HQ’, ‘Subsidiary’, ‘Site/ establishment’. Responses were recoded 1 for policies set at international headquarters, 0 for policies set within the host country. These responses were summed to generate a count index of centralized control with values ranging from 0 to 6 (see Table 3). We considered this to be more appropriate than a coding strategy that took account of all four potential responses, since our focus is on the extent to which control is exercised directly by the parent as opposed to within the host country. The level at which control is exercised within the host country (national HQ, subsidiary, or establishment) is not a central concern for this study and is likely to reflect establishment size and idiosyncrasies of the local organization of the MNE.

The distribution of the centralized control index is typical of a count variable and highly non-normal (table 3). It is also notable that a high proportion of subsidiaries (43.3%) have none of the six HR policies controlled directly by the parent. Only in the case of subsidiaries that are both located in CME settings and that have avoided high levels of unionization of their workforces do we expect to observe a significant tendency by US MNEs to centralize control of HRM.

TABLE 3 ABOUT HERE

### **Independent Variables**

*Coordination Index:* We operationalized the LME – CME continuum by using an index of degree of within country economic coordination recently developed by Hall and Gingerich (2004). They draw on macroeconomic data on finance market and labor market coordination within each

country to construct the index. Through factor analysis they show that the different components of the index combine into a single dimension (eigen-value, 3.12)

Level of unionization was operationalized as *Union Density*: the proportion of employees in the subsidiary who are members of a trade union: '0%', '1-10%', '11-25%', '26-50%', '51-75%', and '76-100%' were coded respectively as 1, 2, 3, 4, 5 and 6.

*Subsidiary Market Scope*: Subsidiary respondents were asked to categorize the market for their organization's products or services: Response categories were local, regional, national, European, and worldwide. European or worldwide were recoded 1 and all other responses were coded 0. We collapsed the local, regional (within nation) and national categories, since they do not bear on the extent to which we can expect the subsidiary to be globally integrated into the operations of the parent. While there might be a case for keeping European and worldwide distinct, the inclusion of Australian subsidiaries alongside European subsidiaries implied that the meaning of 'European' markets as distinct from worldwide markets would become less clear.

#### **Control Variables**

*Manufacturing Sector*: Respondents were asked to indicate the main sector in which the subsidiary operates. Manufacturing was coded as 1 with services coded as 0.

*Organization size*: To measure size we have employed log n of the total number of employees in the subsidiary.

*Age of subsidiary*: Log n (1999 - year of founding or acquisition).

#### **Analysis**

As may be seen in Table 4, there was a significant proportion of missing values in the data. In particular a key variable, union density, had 15% missing values, and list-wise missing values amount

to 35%. This is not unusual in surveys of this kind (especially for union membership data) but it presents a problem for the analysis. We have, thus, used a multiple imputation approach to handling the missing data. In this approach, missing values are imputed from all other information in the data set. The results of analyses are calculated in a way which fully accounts for the uncertainty associated with imputing the missing data. The results are only likely to be biased if union density data is non-ignorable missing, that is, ‘missingness’ is correlated with the value of the missing data. However, there is no *prima facie* reason to believe that respondents’ willingness to report union density will be influenced by union density. Moreover, our success in explaining ‘missingness’ in terms of other variables (see appendix) offers substantial reassurance. The multiple imputation approach to handling missing data and our use of it is described in the Appendix.

#### TABLE 4 ABOUT HERE

Our dependent variable, the centralized control index, is not normally distributed (see Table 3). Since the dependent variable was a count with a non-normal distribution, OLS regression was not appropriate. To test our hypotheses we thus drew on a variant of the general linear model more suited to count data: negative binomial<sup>3</sup> regression (Long, 1997:230-38). Standard errors and significance levels were adjusted for the uncertainty with which missing data were imputed.

#### Results

Table 5 displays (multiple imputation) zero-order correlations and descriptive statistics for all variables. Significance levels were adjusted for the uncertainty with which missing values were imputed. As can be seen, although there is a significant and positive correlation between the coordination index and union density, the correlation is only moderate (.22). This means, as we suggested in our discussion of hypotheses 1 and 2 above, that the one does not necessitate the other. The table also indicates that there is no significant correlation between a subsidiary having a local market orientation and the coordination index. In other words, the decision to allocate a subsidiary a

---

<sup>3</sup> Negative binomial regression was chosen rather than Poisson regression since the independent variable is ‘over-dispersed’ (i.e. variance significantly greater than the mean).

local market role is not made as a response to institutional conditions, but apparently for purely strategic reasons. The table also indicates that union density is unrelated to market orientation.

#### TABLE 5 ABOUT HERE

Table 6 shows the results of the negative binomial regression.

#### TABLE 6 ABOUT HERE

Variables were entered hierarchically in the order shown in the table. The regression model provides a good fit to the data in that both Pearson chi squared/df and deviance/df are close to 1. Wald statistics show whether each variable makes a significant unique contribution to explaining variance in the centralized control index. Exp(B) can be interpreted as the multiplier by which the centralized control index changes for a unit change in an independent variable (we use this in our calculation of effect sizes below). The table indicates that none of the control variables has significant Wald statistics.

The results support hypothesis 1, in that US MNEs impose a greater degree of control on their subsidiaries located in CMEs in comparison with those located in LMEs. The parameter estimate suggests centralized control is about 49% higher for firms in countries at the top of the scale (e.g. Austria) than for firms in countries at the bottom of the scale (e.g. UK).

As hypothesized (H2), union density is inversely associated with centralized control. For a one-unit increase in union density, there is a 13% reduction in centralized control. For a standard deviation increase in union density (1.79) centralized control is reduced by 22% (i.e.  $1 - \exp(1.79 \times -0.14)$ ). The difference between firms with no union presence and those with the highest union presence amounts to a reduction of 50% in the centralized control index.

As a further check on our first two hypotheses, we examined the degree of centralized control for different levels of unionization and coordination index.

TABLE 7 ABOUT HERE

Table 7 compares the degree of centralization of HRM in the subsidiaries of US MNEs for different levels of union membership (zero unionization versus some degree of unionization) and country score on the Hall-Gingerich coordination index (high, medium and low). The results are consistent with hypotheses 1 and 2. However the table appears to also suggest an interaction effect between the level of union membership and institutional context in that we may observe a much greater impact of level of unionization on the centralization of HRM for subsidiaries located in relatively “pure” CME-settings (coordination index  $\geq .70$ ) than on those located in relatively “pure” LME-settings (c.i.  $\leq .29$ ). For the former the difference between union and non-union cells is 31%, for the latter 12%. However, this interaction effect is not statistically significant. Given the sample size this is not surprising. Tests for interaction terms require large samples to achieve much power.

Finally, the results contained in Table 6 support our third hypothesis: US MNEs will impose less centralized control on subsidiaries that serve domestic markets as opposed to international markets. For firms that face a global market, centralized control is 65% higher than for those facing a domestic market.

### **Limitations**

There are some important limitations to our study. First, it is based on cross-sectional survey data thereby inhibiting us from examining causality. We may be reasonably sure that parent control does not influence host country coordination index, and it is unlikely that the association between centralization of control and market orientation is explained by control causing market orientation. However, direction of causality may be a concern in the case of union density. There is evidence (e.g. Hamill, 1984; Singe and Croucher, 2005) that some US MNEs seek to remove or erode the influence of labor unions in their subsidiaries as a matter of policy. Hence, it is possible that those MNEs which seek to centralize control of HRM policies are also those which use that control to reduce the influence of unions.

We should also be clear that while we are arguing that US MNEs will seek greater control over the HRM practices of their subsidiaries based in CMEs than in LMEs, we are not arguing, nor do

we test as an outcome that HRM practices in CME subsidiaries will be more similar to those of the parent than will be HRM practices in LME subsidiaries. Indeed the opposite is likely to be true, since the imposition of greater control is a reaction to the difficulty, in CMEs, of achieving this goal of subsidiary congruence with parent HR approaches.

We have argued that regardless of location the degree of labor union presence in the subsidiary will be a significant determinant of the locus of control of HRM policy. Nevertheless, it is feasible that similar levels of union density may confer different levels of union influence in LME and CME locations. As we have noted above, in many CME locations firm-level union representatives are invariably key members of the works councils. These bodies are legally entitled to co-determination, consultation, and access to important information, and thereby represent an additional restriction on the degree of managerial autonomy that is not found in the LME context (Wächter and Müller-Camen, 2002). Table 7 seems to suggest that the effect of unionization may be greater in CMEs than in LMEs, and this is plausible since in CMEs labor unions play an import role as guardians of the, legally mandated, labor market institutions. However our sample is not adequate to test for such interaction effects. Thus, this question of the interaction between the effect of collective representation and variety of capitalism must remain a question for future research.

A further limitation to our findings is that we fail to take into account subsidiary features over and above their central strategic function, their size, age and industry. Two features in particular should be included in future research, mode of establishment and the creative or contributory mandate of the subsidiary. In regard to the first of these, greenfield subsidiaries have been shown to have less autonomy than acquisitions because the latter, in having a history, are less amenable to control than the former (Rosenzweig and Nohria, 1994; Young et al., 1985). In regard to the second, it is suggested (e.g. Taggart and Hood, 1999) that “high contributory” subsidiaries will tend to have greater autonomy. Our sectoral control measure also makes a very simplistic distinction between manufacturing and service sectors. There are of course also likely to be significant variations within

those sectors. There is, for example, evidence that some service industries are much more global than others (e.g., Lovelock and Yip, 1996).

Inevitably, this study does not capture some of the detailed nuances of the parent – subsidiary relationship, such as the role of regional headquarters and the shifting political dynamics between different actors within the MNE. For this reason our results are most usefully considered alongside some of the excellent case study data currently being generated on HR policies within the MNE subsidiary relationship (e.g. Almond, et al 2005).

## **Conclusions**

Research on the issue of subsidiary autonomy has generally been conducted within a research perspective that Child (2000:30) refers to as “low context”. That is, there is an emphasis on universal market-dominated and technologically driven rationales that are insensitive to specific contexts. In this paper we have sought to supplement this perspective with what Child labels a “high context” research perspective, by exploring the impact of national contexts in which subsidiaries are socially embedded and institutionally rooted.

Our findings indicate both strategic and institutional context to be important determinants of subsidiary autonomy. The strongest determinant of subsidiary autonomy in regard to HRM is strategic, in the sense of whether the subsidiary is serving a purely domestic market or whether it is serving international markets. As Harzing (2000) has previously demonstrated, and as our findings also indicate, subsidiaries with a domestic market orientation have a significantly greater measure of local HRM autonomy than those with international market responsibilities. However, our findings also indicate that the institutional location of the subsidiary and the degree to which it confronts labor unions are significant determinants of subsidiaries’ HRM autonomy.

US MNEs clearly resist conceding HRM decision-making to subsidiaries located in CMEs. It is after all in CMEs that there will be a particularly pronounced degree of inconsistency between institutional norms and the HRM concerns of US MNEs. It is this inconsistency that these MNEs are attempting to redress by centralizing their control of HRM. However, it is also the case that US MNEs tend to grant HRM autonomy to their subsidiaries in those cases where the subsidiary has to deal with



entrenched labor unions. Unions are a key constituent of local employee relations institutions and where they have a strong presence, they are able to resist unilateral imposition of HRM policies to an extent which makes the imposition of centralized control impractical.

As we have suggested, although high union density is significantly more common in CME settings, it would be a mistake to conflate the one with the other. Furthermore, our results support the value of considering both strategic and institutional contexts as determinants of the parent subsidiary relationship and reinforce the usefulness of the ‘varieties of capitalism’ approach to understanding national institutional contexts. However, we accept that national institutional contexts evolve and change over time (Streeck and Thelen, 2005). For example as we noted above with the introduction of the Industrial Relations Reform Act in 1993 Australia arguably became somewhat more of an LME. In the case of Germany it has been claimed by Hassel (1999), that German industrial relations have been subject to erosion since the early 1980s; that the institutional base of the German industrial system has not been able to transfer its institutions into the growing segment of small and medium-sized companies in the private service sector. As a consequence it should be recognized that the Hall and Gingerich index of 2004 will need to be regularly updated and possibly reworked.

Finally, it is important to point out that this paper has confined itself to US MNEs. As Harzing and Sorge (2003:206) have recently observed, control mechanism are “firmly and primarily impregnated by the country of origin” so that MNEs are best conceived “as national firms with international operations.” Similarly, Child et al. (2001) and Geppert et al. (2003) demonstrate the influence of the country-of-origin effect on the application of home country practices to subsidiaries. In other words, had this paper been concerned with, for example, Japanese rather than US MNEs, the approach to centralization would have been different.

### **Acknowledgements**

We gratefully acknowledge the valuable advice of three anonymous reviewers and the Departmental Editor, Helen De Cieri.

## References

- Albert, M. (1991) *Capitalisme Contre Capitalisme*, Paris: Éditions du Seuil.
- Allison, P. (2001) *Missing Data*, Thousand Oaks: Sage.
- Almond, P., Edwards, T., Colling, T., Ferner, A., Gunnigle, P., Muller-Camen, M., Quintanilla, J., and Wächter, H. (2005) Unravelling Home and Host Country Effects: An Investigation of the HR Policies of an American Multinational in Four European Countries, *Industrial Relations* 44(2): 276-306.
- Barry, M. and Wailes, N. (2004). 'Contrasting Systems? 100 Years of Arbitration in Australia and New Zealand', *Journal of Industrial Relations* 46(4), 430-447.
- Bartlett, C.A. (1986) 'Building and Managing the Transnational: The New Organizational Challenge', in M.E. Porter (ed.) *Competition in Global Industries*, Boston: Harvard Business School Press, pp.367-401.
- Bartlett, C.A. and Ghoshal, S. (1989) *Managing Across Borders: The Transnational Solution*, Boston: Harvard Business School Press.
- Bévort, F., J.S. Pedersen, J.S. and Sundbo, J. (1995) 'Denmark', in I. Brunstein (ed.) *Human Resource Management in Western Europe*, Berlin: Walter de Gruyter, pp.31-58.
- Birkinshaw, J. and Hood, N. (1998) 'Multinational Subsidiary Evolution: Capability and Charter Change in Foreign-Owned Subsidiary Companies.' *Academy of Management Review* 23(4): 773-795.
- Brewster, C., Hegewisch, A., Mayne, L. and Tregaskis, O. (1994) 'Methodology of the Price Waterhouse Cranfield Project', in C. Brewster and A. Hegewisch (eds.) *Policy and Practice in European Human Resource Management*, London: Routledge, pp. 230-245.
- Brewster, C., Tregaskis, O., Hegewisch, A. and Mayne, L. (1996) 'Comparative Research in Human Resource Management: A Review and an Example', *International Journal of Human Resource Management* 7(4): 585-604.

- Child, J. (2000) 'Theorizing About Organizations Cross-Nationally', in J.L.C. Cheng and R.B. Peterson (eds.) *Advances in International Comparative Management* 13: 27-75.
- Child, J., Faulkner, D. and Pitkethly, R. (2001) *The Management of International Acquisitions*, Oxford: Oxford University Press.
- Croucher, R., Gooderham, P.N. and Parry, E. (2006) 'The Antecedents of Direct Communication in British and Danish Firms: Country, "Strategic HRM" or Unionization?' *European Journal of Industrial Relations*. 12(3): 267-286.
- Dell'Aringa, C. and Lodovici, M (1992) 'Industrial relations and economic performance', in T. Treu (ed.) *Participation in Public Policy Making: The Role of Trade Unions and Employers' Associations*, Berlin: De Gruyter, pp: 26-58.
- DiMaggio, P. and Powell, W. (1983) 'The Iron Cage Revisited: Institutional Isomorphism and Collective Rationality in Organizational Fields', *American Sociological Review* 48(2): 147-160.
- Edwards P, Hall M, Hyman R, Marginson P, Sisson K, Waddington J, Winchester D (1992) 'Great Britain: Still Muddling Through', in A. Ferner and R. Hyman (eds.) *Industrial Relations in the New Europe*, Oxford: Blackwell, pp: 1-68.
- Fenton-O'Creevy, M.P., Wood, S.J. (forthcoming 2007) 'Diffusion of Human Resource Management Systems in UK Headquartered Multinational Enterprises: Integrating Institutional and Strategic Choice Explanations', *European Journal of International Management*, 1(4).
- Ferner, A. (1997) 'Country of Origin Effects and HRM in Multinational Companies', *Human Resource Management Journal* 7(1):19-37.
- Ferner, A., Almond, P., Clark, I., Colling, T., Edwards, T., Holden, L. and Muller-Camen, M. (2004) 'The Dynamics of Central Control and Subsidiary Autonomy in the Management of Human Resources: Case-Study Evidence From US MNCs in the UK', *Organization Studies* 25(3): 363-91.
- Foss, N. (1999). 'The Challenge of Business Systems and the Challenge to Business Systems', *International Journal of Management & Organization* 29(2): 9-24.

- French, S. (2001) 'Works Councils in Unified Germany: Still Loyal to the Trade Unions?' *International Journal of Manpower* 22(6): 560-78.
- Garnier, G.H. (1982) 'Context and Decision-Making Autonomy in the Foreign Affiliates of U.S. Multinational Corporations', *Academy of Management Journal* 25(4): 693-908.
- Geppert, M., Matten D., and Williams, K. (eds.) (2002) 'Introduction', in M. Geppert, D. Matten and K. Williams, (eds.) *Challenges for European Management in a Global Context*, Basingstoke: Palgrave Macmillan, pp. 1-16.
- Geppert, M., Williams, K. and Mattern, D. (2003) 'The Social Construction of Contextual Rationalities in MNCs: an Anglo-German Comparison of Subsidiary Choice', *Journal of Management Studies* 40(3): 617-641.
- Giardini, A., Kabst, R., and Müller-Camen, M. (2005) 'HRM in the German Business System', *Management Revue* 16(1): 63-80.
- Gooderham, P.N. and Nordhaug, O. (1997) 'Flexibility in Norwegian and UK firms: competitive pressures and institutional embeddedness', *Employment Relations* 19(6): 568-580.
- Gooderham, P.N., Nordhaug, O. and Ringdal, K. (1999) 'Institutional and rational determinants of organizational practices: human resource management in European firms', *Administrative Science Quarterly* 44(4): 507-31.
- Gunnigle, P., MacCurtain, S. and Morley, M. (2001) 'Why Ireland? A qualitative review of the factors influencing the location of US multinationals in Ireland with particular reference to the impact of labour issues', *Economic and Social Review* 32(1): 43-67.
- Gunnigle, P., Morley, M. and Turner, T. (1997) 'Challenging collectivist traditions: individualism and the management of industrial relations in greenfield sites', *Economic and Social Review* 28(1): 105-134.
- Gunnigle, P., O'Sullivan, M. and M. Kinsella (2002) 'Organised labour in the new economy: Trade Unions and Public Policy in the Republic of Ireland', in D. D'Art and T. Turner (eds.), *Irish Employment Relations in the New Economy*, Dublin: Blackhall Press, pp: 222-258.

- Hall, P.A. and Gingerich, D.W. (2004) '*Varieties of capitalism and institutional complementarities in the macroeconomy*', *MPIfG Discussion paper 04/5*, Berlin: Max Planck Institut für Gesellschaftsforschung.
- Hall, P.A. and Soskice, D. (eds.) (2001) *Varieties of Capitalism: The Institutional Foundations of Comparative Advantage*, Oxford: Oxford University Press.
- Hamill, J. (1984) 'Labour relations decision making in multinational corporations', *Industrial Relations Journal* 15(2): 30–34.
- Hassel, A., (1999). 'The erosion of industrial relations in Germany'. *British Journal of Industrial Relations*, 37(3): 483-505.
- Harzing, A.W. (2000) 'An empirical test and extension of the Bartlett and Ghoshal typology of multinational companies', *Journal of International Business Studies* 31(1): 101-120.
- Harzing, A-W., Sorge, A. and Paauwe, J. (2002) 'Headquarters-subsidary relationships in multinational companies: A British-German Comparison', in M. Geppert, D. Matten and K. Williams (eds.) *Challenges for European Management in a Global Context*, Basingstoke: Palgrave Macmillan, pp. 96-118.
- Harzing, A-W. and Sorge, A. (2003) 'The relative impact of country of origin and universal contingencies on internationalization strategies and corporate control in multinational enterprises: worldwide and European perspectives', *Organization Studies* 24(2): 187-214.
- Hitt, M., Ahlstrom, D., Dacin, M.T., Levitas, E., and Svobodina, L. (2004). The institutional effects on strategic alliance partner selection in transition economies: China vs. Russia. *Organization Science* 15(2): 173-185.
- Hollingsworth, J.R. and Boyer, R. (eds.) (1997) *Contemporary Capitalism: The Embeddedness of Institutions*, Cambridge, MA: Cambridge University Press.
- Hollingsworth, J. R. (1997) 'Continuities and changes in social systems of production: the cases of Japan, Germany, and the United States', in J.R. Hollingsworth and R. Boyer (eds.) *Contemporary Capitalism: The Embeddedness of Institutions*, Cambridge, MA: Cambridge University Press, pp. 260-282.

- Hollingsworth, J.R. (2003). 'Advancing the socio-economic paradigm with institutional analysis.' *Socio-Economic Review* 1(1): 130-134.
- Kihn, L.A. (2001). 'Strategies, decentralization, and controls in internationalized Finnish firms,' *The Finnish Journal of Business Economics* 1(1): 35-57.
- King, G., Honaker, J., Joseph, A. and Scheve, K. (2001) 'Analysing incomplete political science data: an alternative algorithm for multiple imputation', *American Political Science Review* 95(1): 49-69.
- Klikauer, T., (2002) 'Stability in Germany's industrial relations: A critique on Hassel's erosion thesis'. *British Journal of Industrial Relations*, 40(2): 295-308.
- Kostova, T. (1999) 'Transnational transfer of strategic organizational practices. A contextual perspective', *Academy of Management Review* 24(2): 308-324.
- Kostova, T. and Roth, K. (2002) 'Adoption of an organizational practice by subsidiaries of multinational corporations: institutional and relational effects', *Academy of Management Journal* 45(1): 215-233.
- Kristensen, P.H. (1992) 'Strategies against structures: institutions and economic organizations in Denmark', in R.Whitley (ed.) *European Business Systems*, London: Sage, pp. 117-136.
- Lane, C. (1992) 'European business systems: Britain and Germany compared', in R.Whitley R. (ed.) *European Business Systems*, London: Sage, pp. 64-97.
- Long, J.S. (1997) *Regression models for categorical and limited dependent variables*, Thousand Oaks: Sage.
- Lovelock, C. H. and G. S. Yip (1996). 'Developing global strategies for service business', *California Management Review* 38(2): 64-86.
- Martinez, J.I. and Jarillo, J.C. (1991) 'Coordination demands of international strategies', *Journal of International Business Studies* 22(3): 429-444.
- Mayer, M. and Whittington, R. (2002) 'For boundedness in the study of comparative and international business: the case of the diversified multidivisional corporation', in M.

- Geppert, D. Matten and K. Williams (eds.) *Challenges for European Management in a Global Context*, Basingstoke: Palgrave Macmillan, pp. 19-41.
- Myloni, B., Harzing, A.W.K., and Mirza, H. (2004) 'Host country specific factors and the transfer of human resource management practices in multinational companies', *International Journal of Manpower* 25(6): 518-534.
- Noorderhaven, N.G. and Harzing, A.W.K. (2003) 'The 'country-of-origin effect' in multinational corporations: sources, mechanisms, and moderating conditions', *Journal of International Business Studies* 43(2): 47-66.
- Oliver, C. (1991) 'Strategic responses to institutional processes', *Academy of Management Review* 16(1): 145-179.
- Oliver, C. (1997). 'Sustainable competitive advantage: Combining institutional and resource-based views', *Strategic Management Journal* 18(9): 697-713.
- Ortiz, L. 1998 'Unions' response to teamwork: differences at national and workplace level', *Industrial Relations Journal* 29(1): 42-57.
- Peng, M.W., Lee, S-H., and Wang, D.Y.L. (2005) 'What determines the scope of the firm over time? A focus on institutional relatedness', *Academy of Management Review* 30(3): 622-633.
- Redding, G. (2005). 'The thick description and comparison of societal systems of capitalism', *Journal of International Business Studies* 36(2):113-155
- Roth, K. (1992). 'Implementing international strategy at the business unit level: The role of managerial decision-making characteristics, *Journal of Management* 18(4): 769-789.
- Royle, T. (2002) 'Resistance is useless! The problems of trade union organizations in the European fast-food industry: The Case of McDonald's', in M. Geppert, D. Matten and K. Williams (eds.) *Challenges for European Management in a Global Context*, Basingstoke: Palgrave Macmillan, pp. 189-214.
- Rozenzweig, P.M. and Nohria, N. (1994). 'Influences on human resource management practices in multinational corporations', *Journal of International Business Studies* 25(2): 229-251.

- Rubery, J. and Wilkinson, F. (1994) *Employer Strategy and the Labour Market*, Oxford: Oxford University Press.
- Scholz, C. (1996) 'Human resource management in Germany', in T. Clark (ed.) *European Human Resource Management*, Oxford: Blackwell, pp. 118-155.
- Scott, W.R. (1995) *Institutions and Organizations*, Thousand Oaks, CA: Sage.
- Singe, I. and Croucher, R. (2005) 'US multinationals and the German industrial relations system', *Management Revue* 16(1): 123-137.
- Sorge, A. (1995) 'Cross-national differences in personnel and organization', in A.W. Harzing and J. van Ruysseveldt (eds.) *International Human Resource Management: An Integrated Approach*, London: Sage, pp. 99-123.
- Streeck, W. and Thelen, K. (2005). 'Introduction', in W. Streeck and K. Thelen (eds.) *Beyond Continuity*, Oxford: Oxford University Press, pp. 1-39.
- Taggart, J.H. and Hood, N. (1999) 'Determinants of autonomy in multinational corporation subsidiaries', *European Management Journal*, 17(2): 226-236.
- Tempel, A. (2002) 'Multinational companies, institutional environments and the diffusion of industrial relations practices', in M. Geppert, D. Matten and K. Williams (eds.) *Challenges for European Management in a Global Context*, Basingstoke: Palgrave Macmillan, pp. 143-164.
- Wächter, H. and Müller-Camen, M. (2002). 'Co-determination and strategic integration in German firms', *Human Resource Management Journal* 12(3): 76-87.
- Wächter, H. and Stengelhofen, T. (1995) 'Germany', in I. Brunstein (ed.) *Human Resource Management in Western Europe*, Berlin: Walter de Gruyter, pp. 89-112.
- Westney, D.E. (1993) 'Institutionalization theory and the multinational corporation', in S. Ghoshal and D.E. Westney (eds.) *Organization Theory and the Multinational Corporation*, New York: St. Martin's Press, pp. 53-76.
- Wever, K.S. (1994) 'Learning from works councils: Five unspectacular case studies from Germany.' *Industrial Relations* 33(4): 467-81.



- Whitley, R. (1997) 'The social construction of economic actors', in R. Whitley and P.H. Kristensen (eds.) *The Changing European Firm*, London, Routledge, pp. 39-66.
- Whitley, R. (1992) 'Societies, Firms and Markets: the Social Structuring of Business Systems. R. Whitley, (ed.) *European Business Systems: Firms and Markets in their National Contexts*, London: Sage, pp. 5-45.
- Xu, D. and Shenkar, O. (2002) 'Institutional distance and the multinational enterprise', *Academy of Management Review* 27(4): 608-618.
- Young, S., Hood, N. and Hamill, J. (1985) *Decision-Making in Foreign-Owned Multinational Subsidiaries in the United Kingdom*, Geneva: International Labour Office.
- Young, S. and A.T. Tavares (2004) 'Centralization and autonomy: back to the future', *International Business Review* 13(2): 215-235.

**Table 1.** Key HRM practices in relation to requirements for the realization of generic types of control aimed at by US MNEs

Type of control	Requirements	Key HRM practices
<b>Impersonal</b>	Highly differentiated pay system	Pay policy
	Flexible employment contracts.	Workforce expansion
		Recruitment & selection
		Industrial relations agenda
<b>Indirect personal</b>	Promotion of common values	Management development
		Training & development

**Table 2** Country frequencies and coordination index scores

Country	Frequency	coordination index
UK	113	.07
Ireland	81	.29
Australia	54	.36
Switzerland	11	.51
Spain	19	.57
Netherlands	10	.66
France	18	.69
Sweden	11	.69
Denmark	20	.70
Finland	3	.72
Portugal	8	.72
Belgium	32	.74
Norway	10	.76
Italy	5	.87
Germany	39	.95
Austria	7	1.00
<b>Total</b>	<b>441</b>	

**Table 3** Centralized control index: frequencies

<i>Count</i>	<b>Frequency</b>	<b>Percent</b>
0	191	43.3
1	100	22.7
2	67	15.2
3	42	9.5
4	16	3.6
5	10	2.3
6	15	3.4
<b>Total</b>	441	100.0

**Table 4** Missing values

	Count	Percent
Centralized control index	0	0.0
Manufacturing sector	0	0.0
Size of subsidiary	22	5.0
Age of subsidiary	78	17.7
Global market	18	4.1
Union density	66	15.0
Coordination	0	0.0
Cases with at least one missing value	153	34.7
N=441		

**Table 5** Multiple imputation zero order correlation estimates

	Mean (SD)	1	2	3	4	5	6
1. Centralized control index	1.28 (1.56)						
2. Manufacturing sector	0.58 (0.49)	.01					
3. Logn(No. employees)	5.93 (1.11)	-.01	.10*				
4. Logn(Organization age)	3.32 (1.03)	-.01	.08	.11†			
5. Global market	0.84 (0.38)	.14**	.11*	-.04	-.09†		
6. Union density	3.04 (1.79)	-.16**	.30***	.07	.14**	-.01	
7. Coordination Index	0.44 (0.30)	.06	.04	.00	.12*	.00	.22***

† p &lt; .10

\* p &lt; .05

\*\* p &lt; .01

\*\*\* p &lt; .001

**Table 6** Multiple imputation estimates of negative binomial regression parameters.

Dependent variable: centralized control index.

	<b>MI</b>	<b>MI Standard</b>	<b>Wald</b>	<b>Exp(B)</b>
	<b>regression</b>	<b>Error</b>	<b>statistic</b>	
	<b>coefficient</b>			
	<b>estimate</b>			
	<b>(B)</b>			
<b>Intercept</b>	-.06	.40	.03	.94
<b>Ln (No. employees))</b>	-0.01	0.05	0.02	0.99
<b>Ln(Age)</b>	0.02	0.07	0.07	1.02
<b>Manufacturing sector</b>	0.15	0.13	1.32	1.16
<b>Global market</b>	0.50	0.17	8.42**	1.65
<b>Union density</b>	-0.14	0.04	13.54***	0.87
<b>Coordination Index</b>	0.40	0.20	3.86*	1.49
<b>Dispersion<sup>a</sup></b>	0.71	0.12	33.03***	
<b>Deviance (deviance/df.)</b>	469.44	(1.08)		
<b>Pearson Chi sq.</b>	433.36	(1.00)		
<b>(Chi sq./df.)</b>				
<b>d.f</b>	435			

a. The dispersion index measures the relationship between the mean and variance of the independent variable and is used to indicate whether Poisson regression, which relies on equality of mean and variance, is appropriate or whether the more general negative binomial regression is required.

\*  $p < .05$

\*\*  $p < .01$

\*\*\*  $p < .001$

**Table 7** The degree of centralization of HRM in the subsidiaries of US MNEs by union membership and country score on the Hall and Gingerich coordination index.

Proportion of subsidiaries with a non-zero count on the control index (Cell count)		Union membership		Row mean (Row count)
		No Union	Unionised	
Hall coordination index (Banded)	<i>low (<math>\leq .29</math>)</i>	61% (85)	49% (109)	54% (194)
	<i>medium (.30 - .69)</i>	70% (20)	53% (103)	56% (123)
	<i>High (<math>\leq .70</math>)</i>	89% (12)	58% (112)	61% (124)
	<i>Column mean</i>	65%	54%	57%
	<i>(Column count)</i>	(117)	(324)	(441)



### **Appendix: treatment of missing values**

This appendix describes the procedure we adopted to account for the significant proportion of missing values in the data set. The CRANET survey has a substantial proportion of missing values (34.7% listwise across our analyzed variables and sample). 15.0% are missing on the union density variable, a key variable for our analysis. There are also significant numbers of missing values for two control variables organization size (17.7%) and organization age (5.0%).

Appropriate strategies for handling missing values in data depend on the nature of the 'missingness'. If missing values are randomly distributed with no relationship to the value of the missing variable or to other variables in the data set (known as missing completely at random or MCAR), then both listwise and pairwise deletion of missing values will yield unbiased estimates when analyzing the data. Although in the case of pairwise deletion standard errors will be biased towards zero and listwise deletion will be inefficient since it discards observations. Multiple imputation likewise yields unbiased estimates of parameters, but is more efficient than listwise deletion and gives unbiased estimates of standard errors.

A less stringent assumption concerning missing data is that they are 'missing at random' (MAR). That is, if  $x$  is a variable with missing (i.e. unobserved) values and  $x_{\text{mis}}$  is a variable coded 1 when  $x$  is missing and zero otherwise, then after controlling for other observed variables in the analysis  $x_{\text{mis}}$  is independent of the value of  $x$ .

Where data is MAR but not MCAR then both pairwise and listwise deletion will yield biased estimates for parameters. In contrast multiple imputation yields unbiased, fully efficient estimates for parameters and unbiased estimates of standard errors.

Where  $x_{\text{mis}}$  is related to the underlying value of  $x$ , after controlling for observed values, this is known as non-ignorable (NI) missing data. Where data is NI missing, pairwise deletion, listwise deletion, and multiple imputation all yield biased estimates of parameters. Further, while it is possible to distinguish empirically between MCAR and MAR using observed data, it is not possible to determine from the observed data whether data is NI missing. However, in many cases it is possible to

convert NI missing data to MAR data by controlling for further variables. There may also be a priori reasons to believe data to be MAR as opposed to NI. (Allison, 2001; King et al., 2001)

In the case of our missing union membership data, there is good a priori reason to believe missingness will be related significantly to country, since in some European countries legislation constrains management from collecting data on union membership.

Analysis of our data set shows that country does indeed predict missingness accounting for 27% of the variance. Thus our data is certainly not MCAR. We cannot rule out that the data is NI. However, there is no a priori reason to believe respondents will be more or less likely to respond to questions about union membership as a consequence of high or low levels of union membership. Further we are in a position to draw on a wide range of relevant variables in the Euronet-Cranfield data set in order to impute missing values for union membership.

In addition to the variables in our reported analyses, we included the following variables in the imputation procedure for missing values: Home country, sector, whether national level pay bargaining, presence of works council, percentage of workforce under 25, percentage of workforce over 45, percentage of manual workers in workforce, and whether a union is used as a channel of communication with the workforce. Using all variables to predict missingness on the union membership variable with the general linear model accounts for 50% of variance ( $\text{Adj Rsq} = .50$ ). The largest proportion of variance is accounted for by country ( $\text{partial Eta Sq} = .27$ ). Thus having controlled for a significant proportion of variance in missingness and there being no a priori reason to suspect missingness to be related to level of union membership we may have some confidence that the data is MAR not NI missing.

Thus the most appropriate approach to dealing with the missing data is to use multiple imputation. We used the approach described by King and associates (2001). The missing values are imputed multiple times (usually 3 to 5 is sufficient) to generate multiple data sets. Analysis is then carried out on each imputed data set separately. The missing value imputation was carried out using the King et al. (2001) software Amelia, with 5 imputed data sets. Model parameters are calculated as the average of the parameters from each separate analysis. This process gives unbiased estimators for

model parameters and allows an adjustment to standard errors to allow for the uncertainty of imputed values. Standard errors are calculated by:

$$SE(q)^2 = 1/m \sum_{j=1}^m SE(q_j)^2 + S_q^2(1 + 1/m), \text{ where } m = \text{number of imputed data sets, } SE(q_j)$$

is the standard error of the jth estimate of parameter q,  $S_q^2 = \sum_{j=1}^m (q_j - \bar{q})^2 / (m - 1)$ .